## JSIMS Enterprise



# Joint Simulation System JSIMS New Tools to Train Our Future Warfighters

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## Warfare is Evolving

## JSIMS Enterprise

# **Attrition Warfare**

## Maneuver Warfare

# Full Spectrum of Missions

40s - 70s

 $f_{\text{(force)}}$ 

- Cold War scenario
- Massive forces
- Nuclear weapons

Service Attrition Based Simulations



 $f_{(force, space)}$ 

- Emphasize maneuver
- Joint operations
- Precision weapons

Joint Interoperable Simulations

21st Century



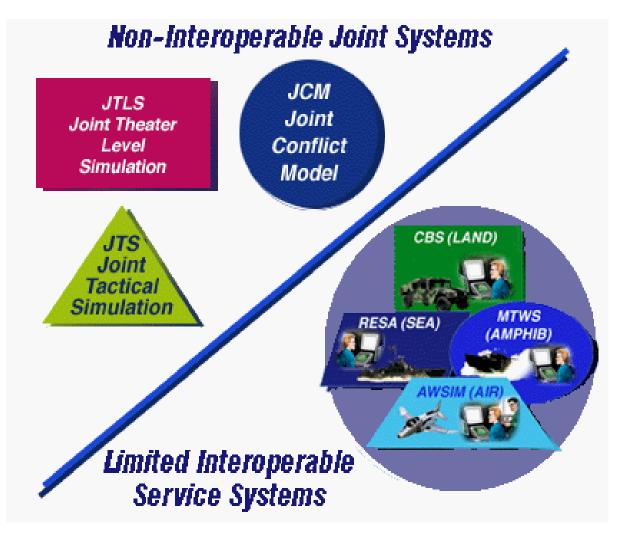
 $f_{\text{(force, space, information)}}$ 

- Non-linear warfare/OOTW
- Integrated Operations
- Timely application of assets

Joint Composable Simulations

## **Legacy Simulations**

### JSIMS Enterprise



#### Today's Challenges

- interoperability
- high overhead
- scope
- maintainability
- C4I connectivity

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## JSIMS Warfighter Vision

## **JSIMS Enterprise**

JSIMS is a simulation system that supports the twentyfirst century warfighter's preparation for real world
contingencies. The system provides garrison and
deployed exercise capability to meet current and
emerging training and operational requirements in a
timely and efficient manner. By interfacing to the
warfighter's real go to war systems, the view into the
simulation world mirrors that of the real world.

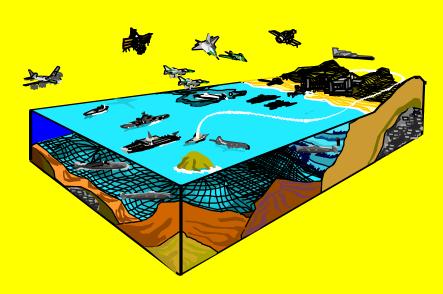
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#### The Next Generation Simulation

## JSIMS Enterprise

#### **At IOC (Apr 01) --**

JSIMS focus is to support Joint and Service training at the operational/theater level of warfare



#### **At FOC (Dec 03)--**

JSIMS focus is to support US Joint, Service and Multinational Interoperability training at all levels of warfare across operational continuum

#### JSIMS will:

- improve joint warfare functionality in training
  - provide a distributed training environment
- interface with go-to-war C4I systems
  - reduce overhead to conduct computer-aided training events
    - offer rehearsal capability

An Evolutionary Training Capability To Meet The Concepts Of JV 2010 -- "Move More Electrons and Fewer Troops"

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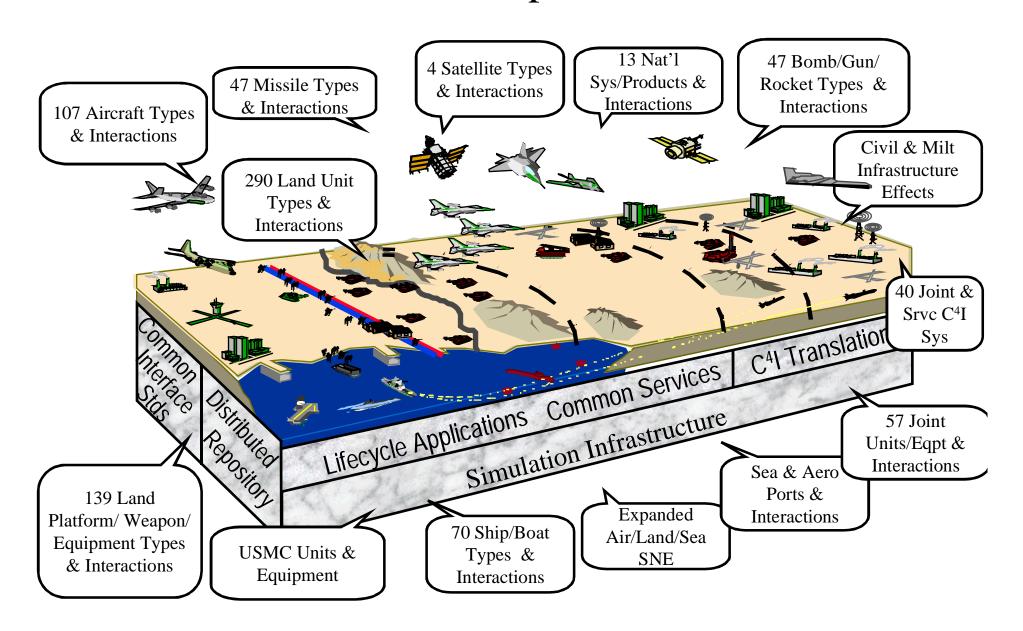
#### **JSIMS Technical Vision**

## JSIMS Enterprise

JSIMS is a single, distributed, seamlessly integrated simulation environment. It includes a core infrastructure and mission space objects, both maintained in a common repository. These can be composed to create a simulation capability to support Joint or Service training, rehearsal, or education objectives.

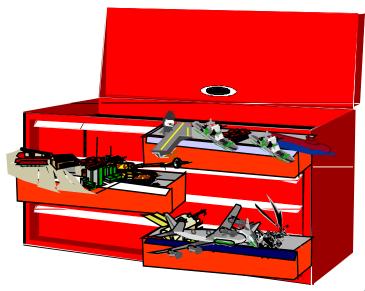
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# JSIMS Must Provide a Balanced, Joint Synthetic Battlespace

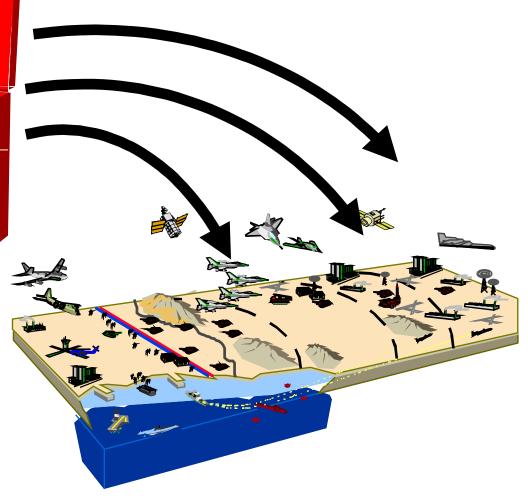


## **Exercise Composition**

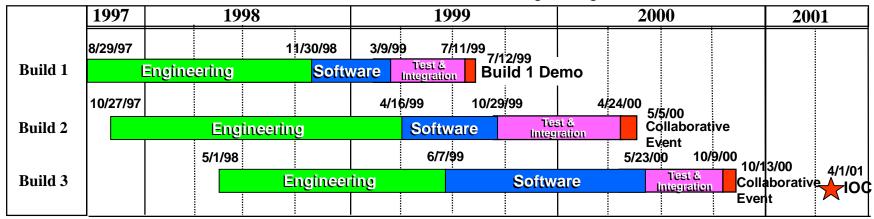
## JSIMS Enterprise .

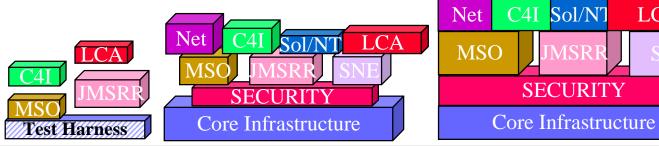


Pull From the JSIMS
Toolbox As Needed
To Compose the Exercise



## JSIMS Functionality by Build





**LCA** 

DOMAIN	Build 1	Build 2	Build 3 / IOC
Joint/Core	<ul><li> JMSRR</li><li> Role Player Functions</li><li> GCCS</li></ul>	<ul><li>Partial Exercise Generation Tools</li><li>Partial Exercise Control Tools</li><li>C4I Interface (USA, USN, USAF)</li></ul>	<ul> <li>Full Exercise Generation and Control Capability</li> <li>Exercise AAR</li> <li>Replaces JTC - Supports CINC/JTF Training</li> </ul>
Army	<ul><li> Maneuver</li><li> C2</li><li> Perceived Truth</li></ul>	<ul><li>Artillery</li><li>Aviation</li><li>Terrain</li></ul>	Logistics     NBC     Intelligence
Navy	<ul><li>Ship Platform</li><li>Warship Motion &amp; Sensors</li><li>Underway Replenishment</li></ul>	<ul><li>Weapons &amp; Engagement</li><li>Basic Ocean</li><li>Flight Operations</li></ul>	<ul><li>Naval Bases &amp; Ports</li><li>Ship/Ground Engagements</li><li>Submarine/Air/Surface Warfare Operations</li></ul>
USAF	<ul><li>Fixed Wing Missions</li><li>Civil Environment</li><li>Airbases</li></ul>	<ul><li>CAS</li><li>CAP/C2/ABCCC</li><li>Satellite Platforms</li></ul>	<ul> <li>Air Operations Center (AOC)</li> <li>Air Tasking Order</li> <li>Electronic Support Measures (ESM)</li> </ul>
Agencies		Partial SIGINT Capability     Partial IMINT Capability	Full SIGINT Capability     Full IMINT Capability     Collection Management

## JSIMS Development Each Release Adds Significant Capabilities

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	Version 1.0 04 / 01	Version 1.1 11 / 01	Version 1.2 12 / 02	Version 2.0 12 / 03
Joint/Other	CINC/JTF Staff, CINC/JTF with Components, JFLCC, JFACC, JFMCC, JSOCC, Multinational, Interagency	Supporting CINC	Senior Off Education, JIC, JIC & JISE	Planning & Analysis, Crew/Team Mission Rehearsal, Professional Officer Education, Doctrine Development, Multinational
Army	Corps Cdr, Corps/Div Cdr, Div Cdr & Staff	Logistics Staff	Intel Staff	Bde/Bn Cdr & Staff, Intel Staff
Air Force	JFACC		AFFOR, JFACC	Wing Ops Center
Navy		Fleet Cdr, Carrier BG Cdr, Task Grp Cdr	Warfare Cdr	
Marine Corps	MEF, Amphib Ops		MARFOR, MEU(SOC)	
Special Ops	JSOTF, ARSOC	AFSOC, NAVSOC	MEU(SOC)	Special Ops Team/Crew Mission Rehearsal

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## Collaborative, Distributed Development

## JSIMS Enterprise

- JSIMS Joint Program Office (JPO) -- Orlando
  - Joint Domain and Core Infrastructure, Enterprise Management
- National Air and Space [Warfare] Model (NASM) -- Hanscom AFB, MA
  - Air and Space Domain
- JSIMS Maritime -- Norfolk, San Diego
  - Maritime Domain, Maritime Environment
- Warfighter's Simulation 2000 (WARSIM) -- Orlando
  - Land Domain, Synthetic Natural Environment
  - WARSIM Intelligence Module (WIM) -- Orlando
    - Tactical Intelligence
- National Simulation (NATSIM) -- Reston
  - National Intelligence Systems
- Joint Signal Simulation (J-SIGSIM) -- Ft. Meade
  - Signal Intelligence
- DOMINO -- DIA
  - DIA National Intel Process Modeling

## Many Significant Accomplishments to Date

## JSIMS Enterprise

Acquisition

- Integrated APB
- Schedule Synchronization

Requirements

- Requirements Harmonization
- JSIMS Requirements Control Board

Development

- Core Architecture
- Build 0
- High-Level Design

#### **Want More Information?**

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# The best source is the JSIMS Enterprise Home Page

http://www.jsims.mil